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Predictors of Change for Parents Who Perceive Improvement in Their Family Functioning Following a Parent-Training Program

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PREDICTORS OF CHANGE FOR PARENTS WHO PERCEIVE IMPROVEMENT IN THEIR FAMILY FUNCTIONING FOLLOWING A PARENT-TRAINING PROGRAM

by

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ABSTRACT

Predictors of Change for Parents Who Perceive Improvement in Their Family Functioning Following a Parent-Training Program

by

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The purpose of the present study was to determine if perceptions of improved family functioning following a behavioral parenting program could be predicted by educational background, income, and pretest knowledge of behavioral principles. Subjects for the study were parents of elementary-school-aged children who volunteered for the parenting classes. Parents who perceived their families as dysfunctional, as measured by the pretest FACES II, were selected as subjects for the study. Parents whose perceptions of their families improved after the parenting class were then compared with parents who did not perceive improvement in their families on the predictor variables.

The results demonstrated that parents whose perceptions of their families improved were not significantly differentiated by income, education, or their knowledge of behavioral principles. These variables were not found to be

as predictors to determine which parents would be positively impacted by the parenting program.

The majority of parents did increase their knowledge of behavioral principles from pretest to posttest; however, this was not related to improvement in perceptions of family functioning. Further research is recommended to ascertain what characteristics of parents predict change following parent training. (72 pages)

CHAPTER I

PROBLEM STATEMENT

As a result of the substance abuse problem in this country, researchers have explored strategies to help prevent youngsters from becoming involved in drug or alcohol abuse. While studies have indicated drug use among teens is down, the use of crack and other more lethal drugs, as well as alcohol, has risen rapidly (Joseph, 1990). Etiological theories about this problem have emerged rapidly as substance abuse continues to be one of the major health and social problems in America (American Medical Association [AMA], 1988) and has now become the focal point for an enormous investment of time and money to wage the "war on drugs."

Substance abuse has had pervasive costs to society. The economic costs have been in the hundreds of billions annually with per capita costs estimated at $850 (Harwood, Napolitano, Kristiansen, & Collins, 1984; MacDonald, 1985). In addition to the tremendous economic consequences of substance abuse, the emotional losses to families and friends are impossible to calculate. The most recent cost, primarily associated with intravenous (IV) drug use, has been the transmission of the human immunodeficiency virus (HIV), the identifiable antibody for the aquired immune deficiency syndrome (AIDS). Addressing these problems has become one of the most pressing issues in our society.

Attempts to control the substance abuse problem have taken three general directions: interdiction, treatment, and prevention. Interdiction efforts can potentially hamper access to drugs but have not appeared to diminish drug and alcohol abuse across the country. Treatment services are necessary after the problem is present but have done little to impact the incidence of abuse and addictions. While the motives for these efforts are laudable, the strategies themselves have not proven effective in the prevention of substance abuse and have not dealt directly with the elements unique to the individual and family that may increase the risk of future drug or alcohol abuse.

Prevention of chemical dependency has been widely accepted as the most cost-effective method of dealing with alcohol- and drug-related problems (MacDonald, 1985). The basic concept of prevention implies removal of causes, or precursors, of the problem to eliminate the eventual consequences of the problem. Prevention literally means to keep something from happening.

In the field of mental health, prevention has involved intervention in a deliberate and positive way to counteract harmful circumstances before they cause disorder or problems of living that seriously interfere with an individual's life and productivity. From this perspective, prevention interventions have potentially addressed a number of youth-related problems including school drop-out rates, delinquency, depression, suicide, and substance abuse.

Globally, these interventions have been defined as primary prevention. In 1977, Goldston detailed primary prevention in this way:

> Primary prevention includes activities directed toward specifically identified vulnerable high-risk groups within the community who have not been labeled psychiatrically ill and for whom measures can be undertaken to avoid the onset of emotional disturbance and/or to enhance their level of positive mental health. Programs for the promotion of mental health are primarily educational rather than clinical in conception and operation, their alternate goal being to increase peoples' capacities for dealing with crises and for taking steps to improve their own lives. (p. 54)

Substance abuse prevention efforts have focused on people who are not yet involved with drugs and alcohol, particularly youth. Bukoski (1985) called the primary prevention strategies the most promising approach to controlling substance abuse, and recently, a variety of these approaches have been implemented with varying success. If effective prevention interventions can be developed that would reduce the demand for drugs and alcohol, then the subsequent human suffering and economic losses can be avoided and the enormous costs of interdiction and treatment reduced (Millard, 1988). Development of strategies for the prevention of substance abuse has become a priority, and many of these approaches are currently being evaluated to determine their effectiveness (Butyanski, Record, & Yates, 1985).

Studies in the area of adolescent drug abuse have identified causes or risk factors for drug abuse (Battjes &

Jones, 1985; Bush & Iannotti, 1985; Hawkins, Lishner, Catalano, & Howard, 1985; Jessor & Jessor, 1978; Kandel, 1982). Some of these risk factors have been specifically associated with the family.

Level of risk can be defined as the probability of an event occurring in a particular group or the statistical association between some experience, condition, or behavior and the development of the disorder (National Mental Health Association, 1987). Individuals with a particular mix of risk characteristics are, theoretically, more likely to use drugs than individuals with a different mix of characteristics. Subgroups that are at risk are determined through epidemiological studies with large groups of individuals. Risk factors characterize a group as having a higher-than-average incidence of substance abuse. These factors include genetic, biological, and social characteristics, experiences, or behaviors.

Current knowledge has indicated complex interactions between risk factors. Hawkins et al. (1985) reported that if a family has one or more risk factors, it increases the child's chances of developing a problem with drugs or alcohol. The following are some of the family risk factors that have been found in the literature: parental substance abuse; parental attitudes toward substance use or abuse; parental criminal or antisocial behavior; inconsistent discipline; poorly defined rules in the family; inadequate emotional bonding in the parent-child relationship; negative

verbal communication, such as belittling or criticism; lack of supportive encouragement; and unrealistic expectations for the children (Ahmen, Bush, Davidson, & Iannotti, 1984; Baumrind, 1985; Bushing & Bromley, 1975; Hawkins & Catalano, 1987; Hawkins et al., 1985; Johnson, Schoutz, & Locke, 1984; Kandel, 1982; Kandel, Kessler, & Mergulies, 1978; Langner, Gertsten, Wills, & Simcha-Fagan, 1983; Lawrence & Velleman, 1974; McDermott, 1984; Patterson, 1982; West & Farrington, 1973).

The risk factors in the individual and the family are an obvious link in the chain of perpetuation of substance abuse that can potentially be broken through prevention efforts. Family intervention strategies have been among the approaches utilized in the prevention of substance abuse that have been gaining enthusiasm and support (Kumpfer & DeMarsh, 1985a, 1985b; Millard, 1988). Research efforts have indicated that prevention interventions directed toward the family show considerable promise as an effective method for prevention of youth substance abuse (Block, Block, & Keyes, 1988; Coleman, 1980; Kellam, Branch, Agrawal, & Ensminger, 1975; Kellam, Brown, Rubin, & Ensminger, 1983; Kumpfer & DeMarsh, 1985b; Shedler & Block, 1990). Further investigation is necessary to determine the efficacy of specific family intervention techniques and their usefulness for parents with different risk characteristics.

Researchers have begun to evaluate characteristics of families that increase the children's risk for later

substance abuse problems. Beavers (1981) postulated that family systems could be ordered along a continuum with respect to their effectiveness. According to his theory, severely dysfunctional families are either binding in relation to the family (enmeshed) or the children leave the family as soon as they can (disengaged). The former is characterized by clinging or binding relationships where the children turn to the family to fulfill their needs. In this type of family system, the members are threatened by separation, and expectations overly emphasize family togetherness at the expense of individuation from the system. The latter extreme family system is characterized by discord, manipulation, instability, disorganization, inconsistent rules, poor communication, and a lack of warmth. In both systems, children do not develop a coherent identity or clear sense of their own boundaries as distinct from other family members.

Several developmental theorists have suggested that these same family dynamics of over-involvement (enmeshment) and/or distancing (disengagement) lead to an inadequate sense of separate self in the child and are an indicator of risk for later substance abuse (Hawkins et al., 1985).

The present study was based on the fundamental assumption that parents influence their children. If parenting skills can be taught that help establish caring relationships and build psychological competence in children, then the risk for deficits in physical, cognitive,

social, and emotional development can be reduced. Behavioral interventions with the family have been one of the prevention strategies being tested to impact the family system and level of functioning.

Hovell, Elder, Blanchard, and Sallis (1986) reported that parents who consistently utilized reinforcement strategies had much more success in child behavior management than parents who did not use such behavioral techniques. Specifically, they indicated that these strategies reduced the likelihood of child misbehavior.

Shedler and Block (1990) indicated that prevention efforts should be aimed at encouraging sensitive and empathic parenting, building the child's self-esteem and interpersonal relationships, and promoting the child's involvement and commitment to meaningful goals. An important function of parent training is to help parents develop techniques of disciplining children other than using physical punishment, such as reinforcement, natural consequences, and limit setting. Despite the obvious need for these family prevention interventions, the research and evaluative literature in this area has been minimal (Forman & Linney, 1988).

The Parent Training Program (PTP) utilized in the current research has been demonstrated to be effective in training parents to utilize behavioral discipline strategies with their children (Kumpfer, 1987; Millard, 1988). The problem related to family interventions is determining what

characteristics identify people that will be positively impacted by which type of prevention intervention. Previous research has not adequately addressed this issue.

The purpose of the present research was to identify high risk parents who would benefit from a behavioral parenting program. The parents studied perceived their families as dysfunctional as measured by the FACES II. Based on current knowledge of risk factors, children from these families were theorized to be at a high risk for later substance abuse. Specifically, the study was designed to determine if improvement in perceptions of family functioning following a behavioral parenting class could be predicted by pretest knowledge of behavior principles, income, or education.

Research Questions

The study attempted to answer the following questions:

1. Is there a difference in pretest knowledge of behavioral principles for those parents who perceived improvement in family functioning and parents who did not perceive improvement in family functioning?

2. Is family income related to perceived improvement in family functioning?

3. Is there a difference in educational background for those parents who perceived improvement in family functioning and parents who did not perceive improvement in family functioning?

CHAPTER II

REVIEW OF THE LITERATURE

There is a large body of research related to the prevention of substance abuse, the majority of which has evolved in the last decade. The first section of this review deals with the etiologies of substance abuse followed by a history of prevention strategies and research that relates to direct intervention. The final section addresses prevention efforts with parents and families.

Etiology of Substance Abuse

The etiology of substance abuse has been the focus of a body of research which has emerged since the 1970s. The current study was based on the premise that if one can identify the risk factors that make a child vulnerable to drug dependency and subsequently impact the child before the onset of experimentation, then the abuse can be delayed or prevented. Forman and Linney (1988) pointed out that little of the prevention research has focused on children at high risk for substance abuse. Many etiological factors of substance abuse and chemical dependency must be taken into consideration in the development and implementation of prevention strategies. A variety of indicators focusing on the etiology of substance abuse have been identified in several studies. These factors can be generally organized

into the following categories: emotional states, individual behaviors, and impact of family functioning.

Emotional Predictors of Substance Abuse

Emotional states such as childhood mood swings, depression, irritability, low tolerance for boredom, anxiety, aggressiveness, social alienation, non-conformity to traditional values, low self-esteem, low frustration tolerance, low motivation for achievement, difficulty expressing thoughts and feelings, and high expectations of themselves have been identified as conditions that precede substance abuse and/or early antisocial behavior (Kaplan, 1977; Knight & Bon, 1984; Lerner & Vicary, 1984; Lewis, Robins, & Rice, 1985; Patton, Kessler, & Kandel, 1977). Hawkins and Catalano (1987) reported psychological distress or psychopathology as predictive of later substance abuse, although Anhalt & Klein (1976) purport psychopathology to be predictive only when users are very young. Kumpfer (1987) and Bell (1988) identified interpersonal factors such as locus of control, depression, and alienation. They also included a category called personal factors that are essentially demographic indicators such as age, sex, ethnicity, family income, parental education, and previous drug use.

Shedler and Block (1990), in a longitudinal study, found that children who later became frequent drug users were impulsive, rebellious, hostile, undependable, unable to

have close relationships, distrustful, unpredictable, and insecure. All of these factors can be influenced by the family system, and although they are categorized separately from the influences of family functioning, they are impossible to address without taking family dynamics into account. Family values, stressors, and coping mechanisms can influence the child's self-esteem and behavior (Kumpfer, 1987). In the field of substance abuse prevention, interventions have been developed to focus on these emotional factors separate from the family system, usually in the form of school-based programs. Researchers have now agreed that the family's influence cannot be ignored, and programs have been developed to improve the level of family functioning in the hopes of impacting the emotional factors and ultimately reducing later vulnerabilities to substance abuse.

Individual Behaviors That Predict Substance Abuse

Researchers have also identified specific types of behaviors that correlate with later substance abuse. Studies have shown that the higher the number of risk factors or the greater the number of problem behaviors children have, the more likely these behaviors will be present in later life (Robins, 1978) and the higher the probability the child will become an abuser (Jessor & Jessor, 1978). Specific behaviors which have been identified in longitudinal studies are antisocial behavior

(Elliot, Huizinga, & Ageton, 1982), hyperactivity, academic failure or little commitment to school (Hawkins & Catalano, 1987), inability to comply with authority, friends who use drugs, lack of social conformity (delinquency or other deviant behavior), sensation seeking, lack of religiosity (Fraser, 1987), early initiation of substance use, and early cigarette use (Kumpfer, 1987).

These individual characteristics could be symptomatic of early drug use as well as symptomatic of familial dynamics. Substance abuse and other deviant behaviors may be options developed as coping mechanisms in response to internal or external pressures. Many of these behavioral risk factors or indicators have been targeted for prevention interventions.

The influences of peer pressure and peer acceptance of drug use have been the primary focus of the school-based prevention programs. Research has supported the belief that these influences are significant in the initiation of drug use (Bukoski, 1986; Forman & Linney, 1988; Kumpfer & DeMarsh, 1985a). Until recently, the large majority of prevention programs focused on peer influence and ignored family factors. The limited success of these programs in reducing the incidence of substance abuse among youth has led researchers to realize the enormous influence of the family and to recognize the importance of family-based prevention interventions. Current literature has suggested a movement toward comprehensive, integrated, intensive, and

enduring prevention interventions to impact the child from multiple sources (National Mental Health Association, 1987).

Family-Related Predictors of Substance Abuse

Prevention research has indicated that many of the factors leading to the use of drugs and alcohol by youth originate in the family. The family has been identified by numerous researchers as having the greatest influence in the initiation, maintenance, cessation, and prevention of drug use (Coleman, 1980; Kumpfer, 1987; Kumpfer & DeMarsh, 1985a).

Kandel (1982) identified three parental factors as predictors of children's initiation into drug use: (a) parent drug using behavior; (b) parental attitudes about drugs; and (c) parent-child interactions. Parental substance use and abuse has been found by several researchers to correlate with the initiation of substance use and later abuse in adolescents (Bushing & Bromley, 1975; Kandel et al., 1978; Johnson et al., 1984; Lawrence & Velleman, 1974; McDermott, 1984). Children of alcohol-abusing parents are four to five times more likely to become alcohol abusers than children without alcohol-abusing parents (Kumpfer, 1987). The combination of parental substance abuse with children's involvement in parental drug-taking behavior has been found to be an even stronger predictor of children's actual use of alcohol and other substances (Ahmen et al., 1984). Kumpfer (1987) reported

that substance-abusing parents spend much less time with their children, less than 12 hours per week, and much of that time is spent in fighting. Loeber and Dishion (1983) determined that parents involved in criminal activities or antisocial behaviors place their children at greater risk for substance abuse, results that were also found by other researchers (Hawkins & Catalano, 1987; Langner et al., 1983). The literature has suggested that parental attitudes about drugs, such as permissiveness in their views of drug use or ignoring signs of drug involvement, are linked to adolescent substance abuse (Johnson et al., 1984; Rachel et al., 1982; Zucker, 1979).

Researchers have determined that even the use of licit drugs for medicinal purposes by parents has been related to drug use in their children. Kumpfer (1987), from a study by Collado-Herrell, reported the risk of substance abuse in children increases as a function of the visibility and casual acceptance of medication use by parents. A study by Smart and Fejer (1972) determined that children seem to be modeling drug-taking behavior from their parents as a way of coping with life. The authors reported that even parental use of legal drugs, such as tranquilizers, increased their children's chances of later drug use. This study, conducted with several thousand families, indicated that children with parents who used tranquilizers daily had an 11% chance of future use of heroin, a 29% chance of using marijuana, 15% for LSD and other hallucinogens, 10% for speed, 15% for

other major stimulants, 71% for alcohol, and a 31% chance of future use of tranquilizers.

In addition to the effect of direct substance abuse modeling, the family and its dynamics have other influences on children's later substance abuse. Assessments of family functioning have been utilized to predict later drug abuse in children. Coleman (1980), Kumpfer & DeMarsh (1985a), Hawkins & Catalano (1987), and Huberty (1974) identified the family as heavily implicated in the initial use of substances and the maintenance, cessation, and prevention of substance abuse. Lack of closeness in parental attachments with affection and support rarely expressed has been found to leave children at risk (Briar & Piliavin, 1965; Brooks, Lunkoff, & Whiteman, 1980; Hirschi, 1969; Kandel et al., 1978; Kim, 1979; Mercer, Hundleby, & Carpenter, 1976; Vaillant & Miloufsky, 1982). Kandel (1982) reported that parent-child interactions predictive of later substance abuse are characterized by a lack of closeness, lack of maternal involvement in activities with children, lack of or inconsistent parental discipline, and low parental educational aspirations for their children. Kumpfer (1987) reported that parental rejection and unavailability leave a child particularly vulnerable to the influence of peer pressure, suggesting the importance of parents and siblings on later drug use.

Addicted youth tend to describe their family relationships as lacking warmth with poor parent-child

relationships (Kumpfer & DeMarsh, 1985b). Shedler and Block (1990) found that parents of children who later abuse drugs were cold, unresponsive, under-protective, and overly focused on the child's performance. Other researchers have identified a familial pattern of over-involvement (enmeshment) in one parent and distancing (disengagement) in the other, leading to an inadequate sense of separate self in the child as related to later substance abuse (Hawkins et al., 1985).

Hawkins and Catalano (1987) reported that all 12 of the risk factors they identified somehow related to family functioning. A history of alcoholism, criminality, child abuse or neglect, family management problems, parental drug use, and permissive attitudes about drugs all related directly to family functioning, whereas other factors such as alienation, rebelliousness, lack of social bonding, academic failure in higher grades, antisocial behavior in adolescence, and early drug use suggested poor family functioning. Further, adolescent rebellion and children with friends who use drugs have also been connected to inadequate emotional bonding with parents and rigid parental discipline.

Some researchers have identified a "rebelliousness syndrome" associated with high-risk familial factors, such as inflexibility, ritualism, and low tolerance for children's self-expression (Kumpfer, 1987). Also reported as related to rebelliousness were other family dynamics, such

as parental conflict and power struggles, ineffective leadership skills, unrealistic control or discipline strategies, unclear rules or parental disagreement on rules, and lack of conflict-negotiation skills.

Disorganization in families with poorly defined rules and inconsistent family management have been implicated in later substance abuse (Baumrind, 1985; Hawkins et al., 1985; Patterson, 1982; West & Farrington, 1973). More specifically, inconsistent discipline, absence of discipline, unclear behavioral limits, and unrealistic expectations have been associated with later substance abuse (Baumrind, 1985; Blum, Henry, & Sanford, 1972; Braucht, Brakarsh, Follingstad, & Berry, 1973; Penning & Barnes, 1982). Reilly (1979) and Kumpfer and DeMarsh (1985a) found that chemically dependent parents had fewer rules at home and their children were more disobedient than children of parents who were not chemically dependent. General family conflict and negative verbal communication such as threatening, belittling, criticizing, poor communication skills, and lack of praise were found in substance abusing families (Booz-Allen & Hamilton, 1974; Reilly, 1979).

In contrast, more functional family characteristics with positive relationships and attachments have discouraged later drug use (Adler & Litecka, 1973; Hawkins et al., 1985; Jessor & Jessor, 1977; Wechsler & Thum, 1973). Homes where parents were available to model appropriate use of substances, provide and promote alternatives to drug use,

provide rewards and love, promote and respect the formation of independent self, assist in developing stress management and decision-making skills, and encourage supportive close family dynamics rarely have drug-abusing children (Kumpfer, 1987). The evidence has been consistent regarding the effects of the quality and consistency in family management, family communication, and parental role modeling on children's substance use (Baumrind, 1985; Kandel, 1982). As Hawkins et al. (1985) stated:

> It appears reasonable from the evidence on childhood predictors of early initiation and abuse that adolescent drug abuse should be viewed from a developmental perspective. Early initiation as well as patterns of abuse can be considered results of experiences from birth through adolescence. Parental alcoholism, early antisocial behaviors, early experiences in the family, later experiences in the school, and finally, interaction with peers all appear to be implicated in the etiology of drug use and abuse. From a developmental perspective it can be argued that early experiences in the family are likely to influence social bonding to the family, social and self-control, and subsequent experiences in school. (p. 32)

Following this line of reasoning, prevention attempts can appropriately be targeted for families, schools, and peer groups. The obvious power of the environmental factors has indicated that prevention interventions directed at motivating parents to improve the child's environment can be successful at reducing drug abuse vulnerability (Kumpfer & DeMarsh, 1985a). These interventions have been more powerful in early childhood, although they can be useful through early adolescence as well (Hawkins et al., 1985).

It makes sense to attempt to impact the problem of future substance abuse vulnerability early in the child's development before other risk factors come into play.

Prevention Strategies

Prevention strategies that have been evolving over the past ten years generally fall into the categories of: (a) school-based substance abuse prevention (education and skills training); (b) family-oriented interventions for the prevention of chemical dependency in children and adolescents; (c) community-based programs for drug abuse prevention; and (d) media prevention approaches (Bukoski, 1985). Only the school-based and family-oriented strategies are applicable to the present project and will be discussed further.

School-based programs. School-based programs focus on the individual or on modifying the school environment. The community or school norms and values, as well as the accessibility and acceptability of substances, has been highly correlated with use and abuse (Bell, 1988). Attempts to modify the school environment may involve the development and enforcement of clear policies related to the use and sale of drugs and alcohol, enhancement of early detection of drug and alcohol use or abuse, and networking with the community in prevention efforts. Some school-based prevention programs attempted to modify both the student and the environment (Hansen et al., 1988). Efforts primarily

directed at the student can be broken down into cognitive, behavioral, and affective/interpersonal techniques.

The cognitive techniques involve basic education in alcohol and drugs and the hazards of use and abuse. The early "scared straight" approach, an example of an educational strategy, was based on the assumption that knowledge of the harmful effects of substances would deter use and prevent abuse. Research has indicated that most substance-abuse-prevention education has not been effective in delaying the onset of drug and alcohol abuse (Battjes, 1985; Bukoski, 1985; Forman & Linney, 1988; Kumpfer & DeMarsh, 1985a; Plant, 1980). However, family participation has been shown to improve the effectiveness of programs like "scared straight" (Kumpfer & DeMarsh, 1985a). Studies on drug education concerning the negative consequences of drug use have demonstrated weak relationships between knowledge, beliefs, and attitudes and later behavior (Hansen et al., 1988). These authors proposed, however, that information about the immediate consequences of drug use may be more helpful than information about the long-term problems.

Bukoski (1986) suggested that cognitive approaches improve students' knowledge about drugs and alcohol but have not concurrently impacted drug use, attitudes, intentions, and behaviors. Bell (1988) indicated that these strategies may even exacerbate the problem by decreasing students' fear of using drugs. Bell further emphasized that the focus of prevention education must be on identified high-risk groups

to be of any usefulness. Despite the lack of empirical support for drug education, this approach has still been the most widely used prevention intervention (Forman & Linney, 1988). It may be important to note that these studies have been successful in increasing students' knowledge of drugs and their effects. These strategies may prove to be more useful if they can be adapted or combined with other approaches to achieve the ultimate goal of decreasing youth's risk for future substance abuse.

Another strategy similar to the cognitive approaches tested by Hansen et al. (1988) involved normative education to increase reality-based knowledge of prevalence and acceptability of drug use in the environment. The assumption was that students tend to exaggerate the prevalence of drug use in their community and have more liberal perceptions of norms than actually exist. The authors attempted to reestablish more conservative norms and beliefs with fifth and seventh graders in the classrooms and schools. They coupled this training with drug education and reported success by increasing posttest scores on knowledge in the prevalence, general acceptability, and knowledge of drugs and their effects. This particular study was designed to assess the short-term effects of such training. The authors intended this study to be groundwork for future research to understand the nature of this learning and how it relates to the long-term goals of substance abuse prevention.

The behavioral approaches involve teaching students strategies to recognize peer pressure and resist social pressure. They also build social skills, teach assertiveness, and promote the self-belief that the student will be able to draw on appropriate responses when needed. These approaches have shown promise in the literature (Bukoski, 1986; Kumpfer & DeMarsh, 1985a). Forman and Linney (1988) indicated that there has been some evidence that these programs can be successful in preventing the use of tobacco and drugs. Duryea and Okwumabua (1988) reported on McGuire's Theory of Attitude Inoculation, an alcohol education model based on the concept of preparing students for future threats, such as peer pressure or persuasive arguments from peers. The authors suggested that once the student has been forewarned about the threat, has practiced methods of resistance, has received feedback about the effectiveness of the methods, and has received booster sessions, he is theoretically "immunized" against such threats. This approach was tested with 130 Nebraska high schoolers who were assessed three years after an intervention for alcohol-related behaviors. Although this strategy has been successful with cigarette smokers (Duryea & Okwumabua, 1988), there were no significant differences in alcohol use between students exposed to the treatment and control groups. The length of time between the treatment and the assessment may have significantly affected the results. Although the authors stressed the importance of

the booster sessions to the success of the intervention, these sessions were continued for only six months following the treatment, while the assessment took place over two years later.

In a study coupling resistance training with drug education, Hansen et al. (1988) found students improved on their posttest scores on measures of drug knowledge and strategies to resist peer pressure. In this particular program, peer opinion leaders were utilized as assistants to help identify social pressures, advertising and entertainment influences, and parental influences as role models. Although the students demonstrated significant improvement on test scores, actual data on behavioral changes were not collected and are impossible to predict. Kumpfer and DeMarsh (1985a) stated that although strategies like the commonly referred to "Say No" program coupled with social skills training and personal competency enhancement are effective in educating students, they fail to address numerous other etiological issues involved in the overall substance abuse problem, such as the family environment. They recommended further longitudinal and follow-up studies to validate these approaches and investigate their long-term effectiveness with high-risk populations.

The affective/interpersonal techniques involve general social and psychological development, including building self-esteem and psychological awareness of one's feelings. These programs include social skills training with practice

exercises focusing on self-esteem, anxiety, social confidence, locus of control, impulsivity, and assertiveness. Botvin's (1983) Life Skills Training and Gilchrist and Schinke's (1985) Skill Training programs both reported effectiveness in preventing substance abuse, but they suggested targeting middle-school children with repeated booster sessions. Other researchers suggested that these techniques appear to be lacking in effectiveness when drug-use attitudes and behaviors are measured later (Bukoski, 1986; Kumpfer & DeMarsh, 1985a).

Family-oriented programs. There are a wide range of parent-training programs which have been utilized and that have proven effective in improving parenting skills before the introduction of prevention interventions. These programs have provided the basis for many of the interventions that have now been developed for prevention purposes. Researchers have begun to achieve valuable outcomes utilizing family intervention strategies. Family-oriented prevention strategies are those that include the parent and/or the family and are focused on the positive socialization of the child and improving the parent-child relationship. One criticism of these programs is that they are effective only with low-risk parents, who may be inherently more motivated than high-risk parents. Although some of the following approaches are targeted for high-risk populations, the differentiation between high- and low-risk

parents for successful intervention continues to be a focus of the present research.

The broad philosophy of prevention addresses many different childhood problems other than substance abuse such as depression, apathy, school dropouts, and suicide ideation. Parent training has been utilized to impact on child abuse and neglect, mental health problems, conduct disorders, and physical abuse (Millard, 1988). Kumpfer and DeMarsh (1985a), in their review of parent and family training prevention programs, quoted from Alvey:

> Parent training is now considered a necessary component of any comprehensive prevention plan which can impact a wide range of social and health problems, including child abuse and neglect, juvenile delinquency, childhood mental health problems, and substance abuse. (p. 137)

This trend reflected what many parents have been aware of for some time: People are not innately or intuitively endowed with skills for effective parenting, and these skills do not magically appear with parenthood. The prevention research so far has concluded that prevention efforts need to be more comprehensive to address the numerous factors involved in the child's development and environment.

Currently there are several programs designed for working with families. Kumpfer and DeMarsh (1985a) classified the family approaches as oriented toward behavioral and affective or cognitive/communication skills. The behavioral approaches, utilized with parents or the

family, involve social learning theory and behavior principles of effective parenting. The evaluative data on these approaches has generally been quite good due to the fact that the parents are asked to record many of their children's behaviors throughout the program, providing an additional source of data for researchers. In a behaviorally based parenting program, Grady, Gersick, and Boratynske (1985) demonstrated improvement in parental decision making through limit setting, community skill building, and children's decision-making skills.

Studies evaluating cognitive/communication programs have generally been encouraging (Millard, 1988). Briggs (1975) has demonstrated improved self-esteem in children through an affect-focused program entitled "Self-Esteem Development" that emphasizes the quality of the relationship with the parents as more critical than the quantity (wealth, education, social class, mother in the home). A similar program, the Foster Parent Training Program (Guerney 1977; Guerney, Guerney, & Andronica, 1966) was an application of "filial therapy," designed to assist foster parents, which focuses on affective/emotional training paired with behavior principles. "Parent Effectiveness Training" (PET) (Gordon, 1970) has been reported to increase confidence and self-esteem in parents and increase their acceptance and understanding of their children. Concurrently, children reported increased feelings of parental acceptance, improved moral reasoning, and increased academic achievement.

Another example of a cognitive/communication parent training program is the "Systematic Training for Effective Parenting" (STEP) (Dinkmeyer & McKay, 1976). The authors contended that dysfunctional family interactions are related to a lack of knowledge, experience, and information. The program consisted of 8 to 12 weeks of two-hour groups in which parents participated in discussions and role plays to develop skills for democratic living and an understanding that behaviors are purposeful. Researchers reported that the STEP program changed parental attitudes toward child-rearing practices. Mothers indicated they felt less authoritarian and controlling and that they had seen changes in their children's behaviors (Kumpfer & DeMarsh, 1985a).

Glenn (1984) designed a cognitive/communication program called "Developing Capable Young People" which focuses on the development of skills based on assumptions that parent training programs should stress goals and principles rather than techniques for accomplishing goals. Glenn's premise was that parents need to be concerned and willing to learn and that parenting should be viewed as a process rather than as a role. This program emphasized the acquisition of skills, such as empathy, rather than the use of behavior management techniques. While this program has proven effective in teaching parents specific skills such as empathy, it has not been tested with high-risk parents and has not been shown to change behavior in children.

Hawkins (1988) developed a program called "Preparing for the Drug-Free Years" that has become very popular in the past few years. This program is cognitive in nature and is based on a family-meeting format. The family is gathered together weekly to discuss and solve family issues. Proponents are enthusiastic about the program's effectiveness in improving family communication.

The parenting program utilized in the present study has a lengthy history. Originally, the program was developed by Jenson (1980) as a behaviorally oriented intervention for the Children's Behavior Therapy Unit (CBTU) of the Salt Lake County Division of Mental Health. CBTU is a day treatment facility for behaviorally handicapped elementary school students. Parents are instructed in basic behavior principles and have ongoing practice in positive reinforcement, limit setting, and implementation of charts and spinners. The trainers have reported success in changing parents knowledge of behavior principles and their use of behavioral management techniques.

Kumpfer and DeMarsh (1983) were the first to use the Strengthening Families Program based on the Teach model (Jenson, 1980). While behaviorally based, the curriculum was expanded to include communication and affectively oriented techniques. The program was specifically designed for a substance abusing population and was originally implemented with a population of narcotic, opiate, and polydrug abusing parents. The program provided 14 sessions

that included instruction in behavioral parenting principles, targeting a specific child for a behavioral program, and group practice time for parents to discuss problems implementing these strategies. Trainers encouraged progress and aided in problem solving as parents implemented the behavioral programs at home.

Kumpfer (1987) extended this research to compare three different prevention interventions for children of substance abusing parents (N = 60). The data was collected from a Family Assessment Battery that was developed in conjunction with risk factor literature. The assessment consisted of 11 standardized psychological tests, as well as a child questionnaire and a parent questionnaire that were developed by the authors.

The three prevention intervention programs utilized in the Kumpfer investigation were the: (a) Parent Training Program, developed to teach parenting principles and apply them with the objective of reducing the child's negative behaviors; (b) Parent Training Program plus the Children's Skill Training Program, designed to improve pro-social skills and resistance to peer pressure; and (c) Strengthening Families Program, which was a combination of the first two programs plus family skills training based on Guerney's Family Relationship Enhancement Program, designed to improve family communication, and Forehand and McMahon's (1984) program, which was designed to improve the parent-child positive play. The Strengthening Families Program differed

from the other two approaches in that it involved bringing the parents and their children together for the training and practice sessions.

The results demonstrated that each of the training groups achieved their objectives; that is, parents demonstrated increased knowledge of child behavior management principles, improved parent discipline effectiveness, reported fewer problems handling children, and reported improved child behavior. The Strengthening Families Program, however, was the only group that demonstrated improved parent-child relationships and significantly decreased the actual use of alcohol, marijuana, and illegal drugs. More specifically, the combination of all three programs improved the mental status of parents and child, decreased the child's risk behaviors, improved the family environment and parent-child relationships, improved the child's relationships with peers, and increased the child's school achievement. The intervention's affects on the target child were cumulative with the addition of each component.

The paradoxical findings of this research was that while the Strengthening Families Program was the most powerful intervention of the three, it was the least successful in the areas of recruitment and retention. If the parents could be recruited and kept in the classes, this program was the most effective change agent. The parents, however, were quite threatened by the prospect of exposing

their family dynamics to the trainers and the group. The safety and security of the families were perceived to be at risk, and, in the extreme case, the parents believed that they might lose their children if others were to witness the interactions. Therefore, implementing the Parent Training Program and the Children's Skill Training Program separately was found to be the most successful means for accessing the families and changing their dynamics.

In this same study, the authors also evaluated some etiological factors and found that substance abusing families reported more positive marital satisfaction, pro-drug attitudes, drug modeling, and drug use, whereas they reported more negative factors relating to child behavior, school, social and emotional problems, family conflict, support, religiosity, rituals, and recreational activities. Kumpfer (1987) reported that the difference between substance abusing families and normal families was degree of functioning rather than the kind of functioning.

Millard's (1988) research was based on the earlier Kumpfer (1987) research that clearly demonstrated significant differences between addicted and non-addicted families and indicated that children of addicted parents needed to be directly involved in the mental health treatment services (Sowder & Burt, 1978). The first group in the Millard (1988) study demonstrated risk factors in that they were patients at Project Reality, a substance abuse program for opiate addicted people in Salt Lake City,

Utah. In the Project Reality study, the 18 clients who participated in the parenting class and completed the test battery were included in the statistical analysis. This aspect of the study demonstrated that the high-risk parents significantly improved in their knowledge of behavior principles. Further, they significantly changed their responses on important risk factors such as reflecting greater awareness of the notion that family members are separate individuals who behave in predictable age-appropriate manners (Millard, 1988). These findings indicated that the curriculum could be successfully adjusted for use with a high-risk population.

After successfully utilizing the Parent Training Program in a treatment setting, Millard became interested in testing the model in another setting. The second parent group was drawn from Washington School, a local elementary school, and was selected without regard to risk factors. Data on this group was drawn from a Washington School/ Project Reality prevention study that was conducted from 1983-1986 (Millard, 1988). A community comparison group (N = 20) that consisted of parents who responded to a newspaper advertisement was utilized to differentiate the functional level of the other two groups. Millard utilized the Family Assessment Battery from the Kumpfer (1987) investigations with some modifications to reduce the time required for completion.

Measures included in the study were: (a) Children's Behavior Scale; (b) Characteristic Attitudes and Behavior; (c) Parents' Rating Scale for Children; (d) FACES II Items, (e) Parent Knowledge of Child Discipline Principles; and (f) Modified PSC Demographic Inventory.

Demographic and non-demographic items were found to discriminate between high-risk (Project Reality subjects) and low-risk (Washington Elementary School subjects) parents in the Millard (1988) research. Specifically, demographic items which were significant included respondent's occupation, spouse's occupation, respondent's income, spouse's income, respondent's source of income, age level of the target child, respondent's religious preference, respondent's years of education, spouse's years of education, and spouse's source of income. All three groups differed significantly on the economically oriented demographic items, with the school groups being the most affluent and the treatment group being poorest. The groups also differed significantly on the religiosity comparison, indicating lack of religiosity in the substance abusing families.

Results of this study also demonstrated significant gains in knowledge of behavior principles in the school group (although these gains were smaller than in the Project Reality group) and reduction in choices on risk factors in both groups that reflected increased family interactions and commitments (Millard, 1988). These results support the

contention that the high-risk parents demonstrate greater changes in knowledge gain than the low-risk parents.

In summary, evidence supports the contention that families influence children's vulnerability to substance abuse, and numerous strategies are now being tested to teach effective parenting skills that interrupt the dysfunctional system. Research has demonstrated that many of these approaches are effective in reaching intermediary goals, such as decreasing school behavior problems, increasing academic performance, and improving family communication. The present study sought to investigate the variables that might predict success for high risk parents in these parenting programs.

CHAPTER III

METHODS AND PROCEDURES

The purpose of the present research was to determine if parents who perceived improvement in their family functioning after the Parent Training Program were different from parents who did not perceive changes in their family functioning. The variables used to predict change on the FACES II were education, income, and pretest knowledge of behavior principles.

This study was organized essentially as a pretest-posttest design. The FACES II Circumplex was utilized to measure and characterize family functioning on the dimensions of cohesiveness and adaptability. The extremes on both dimensions were theorized to be dysfunctional and are described as enmeshed or disengaged on the cohesiveness continuum and chaotic or rigid on the adaptability continuum (Olson, 1985). Parents who perceived their families as dysfunctional at pretest were selected for the study.

Developmental theorists suggested that family dynamics of over-involvement (enmeshment) and/or distancing (disengagement) lead to an inadequate sense of separate self in the child and in an indicator of risk for later substance abuse (Hawkins et al., 1985).

Sample

Five Salt Lake Valley elementary schools volunteered for the program and were each provided the same services. Based on faculty recruitment, parents were assigned to three parenting groups in three of the schools and two parenting groups in two of the schools. All of the parents were allowed to complete the parenting class, however, for the purpose of the present research only parents who scored in the extremes on the FACES II dimensions were studied (see Figure 1). Parents who scored in the middle four cells of the FACES Circumplex at pretest were eliminated from further analysis.

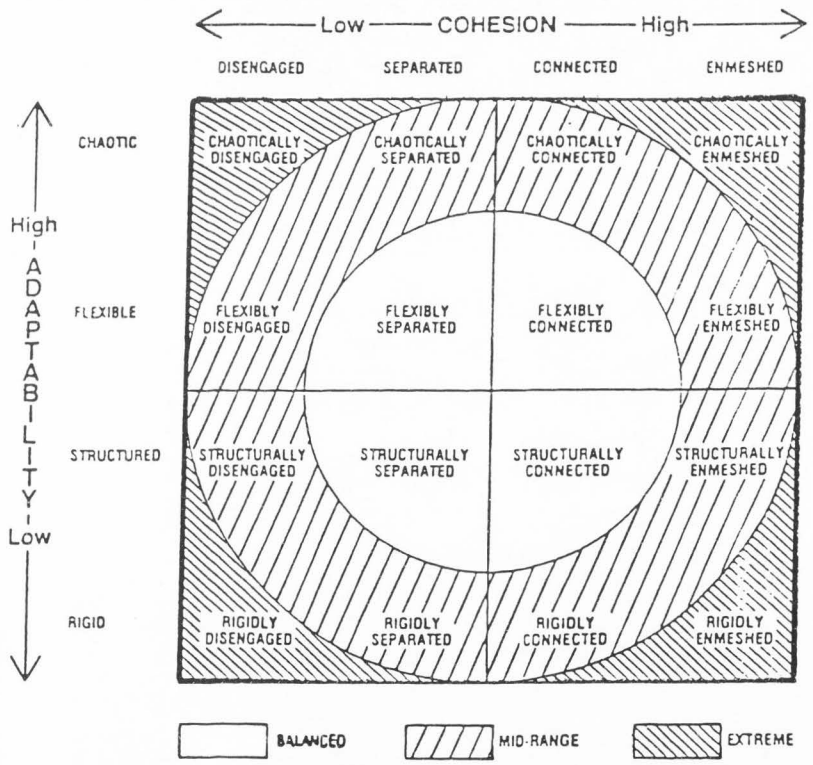

Figure 1. Circumplex model.

The remaining subjects were divided into two groups based on posttest perceptions of family functioning on the FACES II. Parents who perceived improvement in family functioning, represented by moving into the middle four cells on the Circumplex (Improvement Group, N = 19), were then compared with parents who did not perceive improvement in family functioning (No Improvement Group, N = 33). Parents who were studied totaled 52 of the original 75 parents who completed the Parent Training Program.

Descriptive characteristics for the two groups are reported in Table 1. Twenty-one percent of the subjects were male and 79% were female. Eleven percent of the subjects attended the classes as couples. Respondents' marital status was as follows: single, 2%; married, 91%; divorced, 4%; and living together, 4%. A large majority of the participants were married mothers who attended the classes without their spouses. The majority of males were also married but attended the classes with their spouses.

Respondents' income ranged from less than $5,000 per year to over $30,000 annually. The largest percentage (34%) reported incomes of less than $5,000 per year. In contrast, the largest percentage of spouses' income (27%) ranged from $20,000 - 30,000 annually. Over 97% of the respondents had completed high school, with a mean education of 13.56 years, although the majority of the sample (34%) had completed 12 years of education. Respondents' spouses had a mean education of 13.72 years with the largest percentage (30%)

Table 1

Descriptive Characteristics of Parents

Descriptive characteristics for parents who perceived improvement in their families following a parenting class and parents who did not perceive improvement in their families

Respondents' descriptive characteristics	**IMPROVEMENT** N = 19		**NO IMPROVEMENT** N = 33		a p-level
Gender	male = 3 female = 16		male = 8 female = 25		0.71
Age at interview	X = 34 range 27-48		X = 37 range 24-61		0.55
	Number	Percent	Number	Percent	
Marital Status					0.58
single			1	3	
married	18	95	29	88	
divorced			2	6	
living together	1	5	1	3	
Respondent's income					0.56
$ 0 - 5,000/year	4	24	12	40	
5,000 - 10,000/year	4	24	4	13	
10,000 - 20,000/year	5	29	5	17	
20,000 - 30,000/year	3	18	5	17	
over 30,000/year	1	6	4	13	
Spouse's income					0.11
$ 0 - 5,000/year			3	11	
5,000 - 10,000/year	2	12	2	7	
10,000 - 20,000/year	3	18	9	33	
20,000 - 30,000/year	8	47	4	15	
over 30,000/year	4	24	9	33	
Respondent's education					0.18
10 years			1	3	
12 years	9	47	9	27	
13 years	1	5	7	21	
14 years	3	16	9	27	
15 years	2	11			
16 years	4	21	6	18	
18 years			1	3	
No. of children in family					0.65
1	1	5	5	15	
2	5	26	8	24	
3	4	21	10	30	
4	3	16	4	12	
5	2	11	2	6	
6	1	5			
7	2	11	3	9	
8	1	5			
9			1	3	

(table continues)

Respondents' descriptive characteristics	IMPROVEMENT Number	Percent	NO IMPROVEMENT Number	Percent	[a] p-value
Sex of Target Child					0.03
female	15	79	18	55	
male	4	21	15	45	
Religious Preference					0.55
no answer	17	89	22	78	
LDS	1	6	5	17	
Catholic			1	3	
Other Protestant			1	3	
Other	1	6	1	3	
Ethnicity					0.36
Caucasian	17	94	26	87	
Hispanic			3	10	
Black	1	6	1	3	

[a]Significance determined using a chi-square cross-tabulation

having completed high school and the second largest group (20%) having two years of higher education. Number of children per family ranged from one to nine, although the largest number of subjects had two (24%) or three (26%) children in the family. The great majority of parents (63%) targeted female children for the parenting techniques. The sample was comprised of 92% Caucasian, 3% Black, and 5% Hispanic ethnic backgrounds.

At the time of the pretest questionnaire, the respondents ranged in age from 24 to 61, with the mean age of 35 and largest percentage of subjects in the 36-year-old age group. The majority of the parents indicated no religious preference (80%), although 13% indicated Protestant, 2% Catholic, 5% other. The respondents were asked to write in their religious preference on the questionnaire which may have been related to the small percentage of responses to this item.

Training and Procedures

Project Reality hired two teachers to co-facilitate each of the parenting groups. The co-facilitators each participated in a 12-hour training session that included extensive review and practice in: (a) curriculum content; (b) recruitment and telephoning procedures; (c) confidentiality issues; (d) evaluation instruments; and (e) group facilitation.

The weekly two-hour parenting classes were held for eleven consecutive weeks at each elementary school. The co-facilitators conducted the sessions, helped direct the group process, and helped parents design individual behavioral programs for their children. During the classes, the Project Reality clinical staff provided weekly consultation for the facilitators to give additional training, build team support, and identify and process clinical issues in the classes. This consultation was primarily focused on adapting the curriculum to meet each individual group's needs.

During the first two hour session, subjects were informed of the procedures for maintaining confidentiality and administered the pretest. The subjects were asked to target one specific child when responding on the pretest and posttest measures and to continue targeting this child for the parenting techniques. The testing was administered by the Project Reality Prevention Specialist, and the raw data were coded by the experimenter to protect the identity of

the subjects. The raw data were not made available to the school personnel. Similar procedures were used for the posttest which was administered during the final class session.

Curriculum

The Parent Training Program curriculum used in the present research was originally developed for the Kumpfer and DeMarsh (1985a, 1985b) projects and was tested further in the Millard (1988) research. It was adapted by Kumpfer and DeMarsh (1985a, 1985b) from the Jenson (1980) Teach Curriculum used at the Children's Behavior Therapy Unit (CBTU) of the Salt Lake County Division of Mental Health.

In this program, parents are taught appropriate ways to deal with the problem behaviors of their children and to increase the number of positive interactions with their children. Basic behavior principles and techniques are used to teach the parents to target problem behaviors, ignore inappropriate behaviors, and reward and increase desired behaviors in their children. These parenting characteristics are supported in the substance abuse prevention literature.

This curriculum has been utilized in the Millard (1988) research for three years and in the present research for an additional three years. The use of this curriculum has been continued in an attempt to replicate the previous research projects and allow for the comparison of data.

Measures

The test battery utilized in the study included: (a) Modified PSC Demographic Inventory (b) FACES II Items; and (c) Parent Knowledge of Child Discipline Principles (PKCDP). The FACES II and the PKCDP are standardized, psychological tests with national norms. The assessment battery was intended to evaluate parent knowledge of behavioral discipline principles and to assess change in family functioning from pretest to posttest.

PSC Demographic Inventory. The PSC Demographic Inventory was originally utilized in the Utah State Substance Use Incidence and Prevalence Survey in 1983. The PSC is a demographic questionnaire developed to assess the demographic characteristics of the families and contains 24 items to gather information on age, sex, income, and education.

FACES II. The Family Adaptability and Cohesion Evaluation Scale (Faces II) is a 30-item questionnaire developed by the Family Social Science Department at the University of Minnesota to assess the family environment. Each item is rated on a one-to-five Likert-type scale. The instrument is designed so that individual family members can describe how they perceive their family functioning. The instrument asks respondents to rate areas of family life that fall into categories of cohesion, communication, group activities and identification, styles of interaction, and decision making.

The scale was designed to assess the constructs of cohesion (16 items) and adaptability (14 items) as they relate to families and was meant to be used for clinical assessment and intervention planning. Cohesion is defined as the emotional bonding the members have with one another and adaptability is defined as the ability of the marital/ family system to change its power structure, role relationships, and relationship rules in response to situational and developmental stress (Olson, Portner, & Bell, 1982; Olson, Sprenkle, & Russell, 1979). Specific concepts used to identify cohesiveness are emotional bonding, boundaries, coalitions, time, space, friends, decision-making, interests and recreation. Concepts used to identify the adaptability dimension are family power (assertiveness, control, discipline), negotiation style, role relationships, and relationship rules. These dimensions were conceptualized on a continuum between disengagement (low cohesion) to enmeshment (high cohesion) and rigid (low adaptability) to chaotic (high adaptability), with extreme styles being more characteristic of disturbed family systems and more moderate styles reflecting balance and healthier family functioning.

The FACES Circumplex Model (Olson et al., 1979; Olson et al., 1982) identifies four levels of family functioning ranging from extreme low cohesion (disengaged) to extreme high cohesion (enmeshed), believed to be indicative of problematic family functioning, and the two moderate or

balanced levels (flexible and structured) that are hypothesized to be the more healthy family systems and the extreme ranges (see Figure 1). Subjects' scores are classified into one of sixteen types of family systems. For the purpose of this study, eight types of family systems, extreme on one dimension and moderate on the other (mid-range types), were identified and utilized in the analysis.

The FACES scales, its predecessors and revisions, have developed rapidly over the past ten years, indicating attention from the family system's community and attesting to the validity of the constructs in theory and research. The 30 items of the FACES II were selected from a factor analysis of the 50-item FACES II instrument administered to 2,412 individuals in a National Survey. From this same sample, Olson (1985) reported reliability for the adaptability construct as .78 and reliability for the cohesion construct as .87. The majority of the research has been done on the original FACES Circumplex model and generally supports the correlation between family functioning and the cohesion/adaptability rating. In this research, this scale was intended to evaluate parent acceptance and use of democratic decision making, parent neglect, parent, child, and family communication skills, and family life stressors (Kumpfer, 1987).

Parent Knowledge of Child Discipline Principles. The Parent Knowledge of Child Discipline Principles scale consists of 12 questions and 2 case studies to determine how

parents would handle specific situations and problems. Based on Kumpfer (1987) research, this instrument evaluates family fighting and lack of supportiveness, parent neglect, parental disagreement on disciplining, parental child management skills, and parental consistency in discipline.

CHAPTER IV

RESULTS

Data analysis consisted of a comparison of parents who perceived improvement in their families and parents whose perceptions did not improve on the predictor variables of income, education, and pretest knowledge of behavior principles. The responses to the data-collection instruments have been coded for computer tabulation and analysis using the Statistical Package for the Social Sciences (SPSS-X, 1988). In testing the hypotheses, chi-square cross-tabulations and t-tests for independent samples were utilized and the .05 level of statistical probability was used to indicate statistically significant differences.

Research Question 1: Knowledge of Behavioral Principles

1. Is there a difference in pretest knowledge of behavioral principles for those parents who perceived improvement in family functioning and parents who did not perceive improvement in family functioning?

The following null hypothesis was used to test the research question: Parents whose perceptions of their families improve following the parenting class and parents whose perceptions of their families do not improve do not differ in their pretest knowledge of behavioral principles.

Data were analyzed using a two sample t-test for independent populations. No statistically significant differences were found, so the null hypothesis was retained (Table 2). There does not appear to be any difference in pretest knowledge of behavioral principles for parents who perceived improvement in their families following the parenting class and parents who did not perceive improvement in their families.

Table 2

Pretest Knowledge of Behavior Principles

Comparison of pretest knowledge of behavior principles for parents who perceived improvement after the parenting class and parents who did not perceive improvement

		GROUP	
		IMPROVEMENT	NO IMPROVEMENT
PRETEST KNOWLEDGE OF BEHAVIOR PRINCIPLES	X	14.36	13.93
	S.D.	2.85	2.93
		p = .61	

Significance determined using a t-test for independent samples

Research Question 2: Income

2. Is family income related to perceived improvement in family functioning?

The following null hypothesis was used to test the research question: Income does not relate to parents' perceptions of family functioning following the parenting class. Data were analyzed using Chi-square cross-tabulations. No significant differences were found in

respondents' income (Table 3). This may have been related to the number of women involved in the study. Spouses' income appeared to differentiate the groups (p = .11) more than respondents' income; however, this was not at a statistically significant level (Table 4). No statistical differences were found when respondents' and spouses' incomes were combined as family income (Table 5), so the null hypothesis was retained. There does not appear to be any relation between income and perceptions of family functioning following the parenting class.

Table 3

Respondents' Income

Comparison of income for respondent's who perceived improvement in their families after a parenting class and parents who did not perceive improvement		
INCOME	**IMPROVEMENT**	**NO IMPROVEMENT**
$ 0 - 5,000	4	12
$ 5,000 - 10,000	4	4
$10,000 - 20,000	5	5
$20,000 - 30,000	3	5
OVER 30,000	1	4

$x^2 = 2.92$	$F = 4$	$p = .56$

Significance determined using a chi-square cross-tabulation

Table 4

Income of Respondents' Spouses

Comparison of income for spouses of parents who perceived improvement after a parenting class and parents who did not perceive improvement		
INCOME	**IMPROVEMENT**	**NO IMPROVEMENT**
$ 0 - 5,000		3
$ 5,000 - 10,000	2	2
$10,000 - 20,000	3	9
$20,000 - 30,000	8	4
OVER 30,000	4	9

$x^2 = 7.36$	$F = 4$	$p = .11$

Significance determined using a chi-square cross-tabulation

Table 5

Comparison of Family Incomes

Comparison of family income for parents who perceived improvement in their families after a parenting class and parents who did not perceive improvement		
INCOME	**IMPROVEMENT**	**NO IMPROVEMENT**
$ 0 - 5,000		3
$ 5,000 - 10,000	1	3
$10,000 - 20,000	2	1
$20,000 - 30,000	2	9
OVER 30,000	12	14

$x^2 = 5.78$	$F = 4$	$p = .21$

Significance determined using a chi-square cross-tabulation

Research Question 3: Parental Educational Background

3. Is there a difference in educational background for those parents who perceived improvement in family functioning and parents who did not perceive improvement in family functioning?

The following null hypothesis was used to test the research question: Parents who perceive improvement in family functioning following a parenting class and parents who do not perceive improvement do not differ in their educational backgrounds.

Parents whose perceptions of their families changed reported an average of 13.5 years of education, and parents who did not perceive changes in their families reported an average of 13.6 years of education. Data on education were analyzed using a using a t-test for independent samples. No statistically significant differences in educational background were found between the parents who perceived improvement and the parents who did not perceive improvement in family functioning (Table 6), so the null hypothesis was retained.

Table 6

Educational Background

Comparison of educational background for parents who perceived improvement after the parenting class and parents who did not perceive improvement

		GROUP	
		IMPROVEMENT	**NO IMPROVEMENT**
RESPONDENT'S EDUCATION	**X**	13.52	13.6
	S.D.	1.67	1.71
		p = .87	

Significance determined using a t-test for independent samples

CHAPTER V

DISCUSSION

As a result of the substance abuse problem in this country, researchers have explored strategies to help prevent youngsters from becoming involved in drug or alcohol abuse. Family intervention strategies are one of the approaches utilized in the prevention of substance abuse that has been gaining enthusiasm and support (Kumpfer and DeMarsh, 1985a, 1985b; Millard, 1988). The problem related to family interventions has been determining what characteristics identify people that will be positively impacted by which type of prevention intervention.

The purpose of the present study was to determine if perceptions of improved family functioning following a behavioral parenting program could be predicted by educational background, income, and pretest knowledge of behavior principles. Subjects for the study were parents of elementary school-aged children who volunteered for the parenting classes. Parents who perceived their families as dysfunctional as measured by the pretest FACES II were selected as subjects for the study. Parents whose perceptions of their families improved after the parenting class were then compared with parents who did not perceive improvement in their families on the predictor variables.

No significant differences were found between either of the groups on respondents' income, respondents' education,

or pretest knowledge of behavioral principles. These variables were not found to be effective as predictors to determine what parents would be positively impacted by the parenting program, in this case as measured by perceptions of improved family functioning.

Parents did appear to slightly improve their knowledge of behavioral principles. The mean scores for the sample changed from 14.2 at pretest to 15.8 at posttest. While both groups of parents appeared to demonstrate learning after the class, the parents whose perceptions of their families did not change scored lower at pretest and higher at posttest than the parents whose perceptions of their families did change.

Educational background and family income were much the same in the groups, although the parents who did not perceive improvement had more years of education and less income than the parents who perceived improvement.

The current research project involved a comparison of high risk parents whose perceptions of their families' functioning changed after the program and parents whose perceptions of their families' functioning did not change. While the demographic variables in the Millard (1988) research discriminated the high-risk parents from the low-risk parents, they did not generally discriminate high-risk parents whose perceptions changed from high-risk parents whose perceptions did not change in the present research.

The one demographic variable that did significantly discriminate the groups was sex of target child. Parents targeted female children for the interventions far more often than male children ($p = .03$). This may have been an indication of a belief that girls would be more receptive to the techniques than boys. Further investigation into this pattern would be of interest.

Specific differences from pretest to posttest in the parents whose perceptions of their families changed may be of interest in understanding the impact of the treatment. These subjects' family functioning improved based on FACES II theoretical assumptions. The specific FACES II items that differed significantly for this group seem to indicate more positive family involvement and communication. These parents perceived improvement in the areas of approval of each other's friends, family communication, support for family decisions, sharing of responsibility, discussion of family problems, and time spent at home together.

Limitations and Recommendations

Several limitations of this study must be considered. The small sample for this research limits the possible interpretation of the results. Continued research with a larger sample size would provide additional validity for the findings. Furthermore, the sample for the present research was drawn from elementary schools with relatively similar

socio-economic communities. Research with a broader representation of parents would be recommended.

The line of demarcation for inclusion in the groups was based on the FACES II profile cells and in some cases reflected very slight differences between subjects. This criteria may have been somewhat arbitrary, and in future research, selection of groups based on amount of change would be more meaningful.

Perceptions of family functioning are likely to be an ongoing process greatly affected by situational factors. The FACES II instrument has more recently been used to measure parents' perceptions of current family functioning as well as their perceptions of an ideal family in an attempt to get a comparison score. The use of the FACES II in this manner could more accurately reflect the perception being measured and provide additional data to measure the impact of the parenting program on family functioning. Follow-up posttesting three to six months after the program could provide additional support for the stability of the changes. Booster sessions some months following the parenting program would also improve retention of the information and skills.

Another possible area of future research might include a measure of the drug and alcohol use in the parents and the children. This information would more directly relate to the preventative aspect of the parenting program. Collection of this information has been avoided in the past

because of the fear of threatening potential participants and stigmatizing the program. Follow-up measures of drug and alcohol use or abuse could be made to avoid the potential problems of collecting this information prior to the program.

Conclusions

The present research studied high-risk parents identified as having dysfunctional family systems on the FACES II. Parents (N = 52) from five Utah elementary schools participated in the parenting program. All the families of interest in this study scored in the extremes on at least one of the FACES dimensions at pretesting. Parents who perceived improvement in their family functioning following the parent training were then compared with parents who did not perceive improvement. The variables of pretest knowledge of behavior principles, income, and education were studied as predictors of change in perception. The results indicated that the parents whose perceptions of their family functioning improved did not have significantly more knowledge of behavior principles, education, or income than the parents who did not perceive improvement.

Utility of parenting programs increases if one can identify and access high-risk individuals in high-risk environments. Assuming the dimensions measured by the FACES II are related to risk characteristics, many high-risk parents were recruited and retained for this program,

accomplishing a major prevention goal. The families that changed their perceptions of family functioning changed in a positive direction. A better understanding of the factors involved in changing family dynamics will improve the success of family-based prevention programs. Continued research in this area can improve our understanding of the etiologies of and risk factors for substance abuse.

In conclusion, there does not appear to be any difference in income, educational background, or pretest knowledge of behavioral principles for parents who perceived improvement in their families following the parenting class and parents who did not perceive improvement. These variables were not useful for predicting parents who would respond positively to the program. Further research is needed to identify what parents will be positively impacted by what programs.

Previous research has indicated that parents do influence their children's vulnerability and risk for later substance abuse. Coleman (1980), Kumpfer & DeMarsh (1985a), Hawkins & Catalano (1987), and Huberty (1974) identified the family as heavily implicated in the initial use of substances and the maintenance, cessation, and prevention of substance abuse. Lack of closeness in parental attachments with affection and support rarely expressed has been found to leave children at risk (Briar & Piliavin, 1965; Brooks et al., 1980; Hirschi, 1969; Kandel et al., 1978; Kim, 1979; Mercer et al., 1976; Vaillant & Miloufsky, 1982).

Studies in the area of adolescent drug abuse have identified causes or risk factors for drug abuse (Battjes & Jones, 1985; Bush & Iannotti, 1985; Hawkins et al., 1985; Jessor & Jessor, 1978; Kandel, 1982). Some family risk factors found in the literature were: parental substance abuse; parental attitudes toward substance use or abuse; parental criminal or antisocial behavior; inconsistent discipline; poorly defined rules in the family; inadequate emotional bonding in the parent-child relationship; negative verbal communication, such as belittling or criticism; lack of supportive encouragement; and unrealistic expectations for the children (Ahmen et al., 1984; Baumrind, 1985; Bushing & Bromley, 1975; Hawkins & Catalano, 1987; Hawkins et al., 1985; Johnson et al., 1984; Kandel, 1982; Kandel et al., 1978; Langner et al., 1983; Lawrence & Velleman, 1974; McDermott, 1984; Patterson, 1982; West & Farrington, 1973)

The risk factors in the individual and the family are an obvious link in the chain of perpetuation of substance abuse that can potentially be broken through prevention efforts. Behavioral parenting interventions are one of the strategies being explored to respond to the substance abuse problem. Evaluative data have not, as of yet, determined what particular characteristics of parents identify them as more or less likely to respond successfully to parenting programs.

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